

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Applicant's or agent's file reference P035987WO/ACJ	FOR FURTHER ACTION	See item 4 below
International application No. PCT/GB2004/004838	International filing date (<i>day/month/year</i>) 17 November 2004 (17.11.2004)	Priority date (<i>day/month/year</i>) 18 November 2003 (18.11.2003)
International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237		
Applicant ETHICON, INC.		

1.	This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 <i>bis</i> .1(a).																								
2.	This REPORT consists of a total of 6 sheets, including this cover sheet. In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.																								
3.	<p>This report contains indications relating to the following items:</p> <table style="width: 100%;"> <tr> <td style="width: 10%; text-align: center;"><input checked="" type="checkbox"/></td> <td style="width: 30%;">Box No. I</td> <td style="width: 80%;">Basis of the report</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. II</td> <td>Priority</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. III</td> <td>Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. IV</td> <td>Lack of unity of invention</td> </tr> <tr> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td>Box No. V</td> <td>Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</td> </tr> <tr> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td>Box No. VI</td> <td>Certain documents cited</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. VII</td> <td>Certain defects in the international application</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. VIII</td> <td>Certain observations on the international application</td> </tr> </table>	<input checked="" type="checkbox"/>	Box No. I	Basis of the report	<input type="checkbox"/>	Box No. II	Priority	<input type="checkbox"/>	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability	<input type="checkbox"/>	Box No. IV	Lack of unity of invention	<input checked="" type="checkbox"/>	Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement	<input checked="" type="checkbox"/>	Box No. VI	Certain documents cited	<input type="checkbox"/>	Box No. VII	Certain defects in the international application	<input type="checkbox"/>	Box No. VIII	Certain observations on the international application
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4.	The International Bureau will communicate this report to designated Offices in accordance with Rules 44 <i>bis</i> .3(c) and 93 <i>bis</i> .1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44 <i>bis</i> .2).																								

<p style="text-align: center;">The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland</p> <p>Facsimile No. +41 22 740 14 35</p>	<p>Date of issuance of this report 22 May 2006 (22.05.2006)</p> <p>Authorized officer Dorothee Mülhausen</p> <p>Telephone No. +41 22 338 87 40</p>
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PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

REC'D 25 APR 2005

PCT/ISA/220

To:

see form PCT/ISA/220

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/GB2004/004838

International filing date (day/month/year)
17.11.2004

Priority date (day/month/year)
18.11.2003

International Patent Classification (IPC) or both national classification and IPC
A61L15/56, A61L15/42, A61L15/32, A61L15/44, A61L15/64

Applicant
ETHICON, INC.

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☒ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA:



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**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/GB2004/004838

Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
☐ a sequence listing
☐ table(s) related to the sequence listing
 - b. format of material:
☐ in written format
☐ in computer readable form
 - c. time of filing/furnishing:
☐ contained in the international application as filed.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/GB2004/004838

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	1-19
	No: Claims	
Inventive step (IS)	Yes: Claims	1-19
	No: Claims	
Industrial applicability (IA)	Yes: Claims	1-19
	No: Claims	

2. Citations and explanations

see separate sheet

Box No. VI Certain documents cited

1. Certain published documents (Rules 43bis.1 and 70.10)

and / or

2. Non-written disclosures (Rules 43bis.1 and 70.9)

see form 210

Re Item V

**Reasoned statement with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement**

Reference is made to the following documents:

- D1: WO 01/24839 A (ACRYMED; GIBBINS, BRUCE, L; HOPMAN, LANCE, D) 12 April 2001 (2001-04-12)
- D2: US-B1-6 468 521 (PEDERSEN LARS HAASTRUP ET AL) 22 October 2002 (2002-10-22)
- D3: US 2003/186955 A1 (VANGE JAKOB ET AL) 2 October 2003 (2003-10-02)
- D4: US-A-5 326 567 (CAPELLI ET AL) 5 July 1994 (1994-07-05)
- D5: WO 02/43743 A (BRISTOL-MYERS SQUIBB COMPANY; BOWLER, PHILIP; JACQUES, ELIZABETH; PARS) 6 June 2002 (2002-06-06)

1. Novelty

The present application meets the criteria of Article 33(1) PCT, because the subject-matter of claims 1 to 19 is new in the sense of Article 33(2) PCT as none of the available prior art documents discloses a wound dressing material comprising a polymeric substrate, a silver salt and a dyestuff.

2. Inventive Step

The subject-matter of the present application appears to involve an inventive step in the sense of Article 33(3) PCT.

The problem to be solved by the present invention is regarded as the provision for improved antimicrobial wound dressing containing light-stabilized silver compounds (cf. p. 2, l.13/14 of the description).

The solution proposed in claim 1 of the present application is the incorporation of a dyestuff which is able to photostabilize the silver salt.

Prior art documents D1 to D5 deal with wound dressings comprising a stabilized silver salt.

According to said documents the stabilization of the silver salt can be obtained by
(1) the presence of chloride salt of copper or iron (cf. D1, p. 24, l. 30-33), or
(2) by the formation of a complex comprising a silver compound and a primary, secondary or tertiary amine which is associated to hydrophilic polymers (cf. D2, col.3, l.1 -8), or
(3) by the formation of a complex of silver ions and hydantoin ligands (cf. D3, p.2 [0016]), or
(4) by using an acyclic polyether polymer (cf. D4, col.2, l. 44-55), or
(5) by addition stabilizers in the form of ammonia, ammonium salts, thiosulphates, chlorides and/or peroxides (cf. D5, p. 4, l. 10-15).

Since none of the prior documents discloses or suggests a stabilization of silver ions with dyestuffs, the claimed subject-matter is considered as a non-obvious alternative to those stabilizers mentioned in D1 to D5. Claims 1 to 19 therefore fulfil the requirements of Art. 33(3) PCT.

Certain Published Documents

WO 2004/112850, although not constituting prior art within the meaning of Rule 64.1 (b) appear to disclose all the features of claims 1 to 19 as the priority document GB 2402882 of this earlier application relates to dyestuff-containing wound dressing material which may comprise antiseptics in the form of silver sulfadiazine (cf. p.7, l.4 to 9).